

Title (en)

STATIC REAL-TIME CT IMAGING SYSTEM AND IMAGING CONTROL METHOD

Title (de)

STATISCHES ECHTZEIT-CT-BILDGEBUNGSSYSTEM UND STEUERUNGSVERFAHREN FÜR BILDGEBUNG

Title (fr)

SYSTÈME D'IMAGERIE CT STATIQUE EN TEMPS RÉEL ET PROCÉDÉ DE COMMANDE D'IMAGERIE

Publication

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Application

EP 15835959 A 20150825

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Abstract (en)

[origin: EP3187112A1] The present invention discloses a stationary real-time CT imaging system, comprising an annular photon counting detector, an annular scanning x-ray source, and a scanning sequence controller. Under the control of the scanning sequence controller, the annular scanning x-ray source emits a narrow-beam x-ray, and the x-ray penetrates the object being tested and projects onto the corresponding annular photon counting detector. The annular photon counting detector delivers the corresponding exposure information through the main scanning machine and the main controlling unit to a CT main machine and a human-machine interface unit. The image reconstruction is completed in the CT main machine and the human-machine interface unit. By electronically controlling and switching x-ray projection positions in order, the scanning speed is enhanced by tens of times, thereby obtaining dynamic 3D images. The use of the photon counting detector enables the access to absorption data and energy data, thereby allows for real-time data reconstruction. By using the narrow-beam x-ray, good quality images can be obtained using one tenth of the dosage of traditional CT imaging systems, thereby preventing patients from being over-radiated.

IPC 8 full level

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